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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,403	06/18/2007	Cynthia A. Parrish	PU60635	2491

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EXAMINER	
O SULLIVAN, PETER G	
ART UNIT	**PAPER NUMBER**
1621	

NOTIFICATION DATE	DELIVERY MODE
02/05/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/583,403	PARRISH ET AL.	
	Examiner	Art Unit	
	Peter G. O'Sullivan	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *27* is/are allowed.

6)☐ Claim(s) *1-26 and 28-31* is/are rejected.

7)☒ Claim(s) *24-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/16/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claims 1-31 are pending in this application which should be reviewed for errors.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 14-19, 21-23 and 28 are rejected under 35 U.S.C. 102(a) as being anticipated by Hashimoto et al. who disclose anticipating compounds such as 2-[4-[[4'-chloro-4-[(methylsulfonyl)amino][1,1'-biphenyl]-2-yl]methoxy]phenyl]-1-cyclohexyl-1H-benzimidazole-5-carboxyclic acid.

Claims 1-6, 10, 14-19, 21-23 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Prasit et al. who disclose the anticipating compound 1-[4-chloro-4'-[methylsulfonyl)amino][1,1'-biphenyl]-3-yl]-N-(cyanomethyl)-4-methyl-2-pyrrolidinecarboxamide.

Claims 1, 10, 14-17, 18, 19, 21-23 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Akasaka et al. who disclose the anticipating compound N-[2,2',4'-trichloro-5-(4-ethyl-1-piperazinyl)[1,1'-biphenyl]-3-yl]-1-propanesulfonamide.

Claims 1-7, 10-23 and 28-31 arerejected under 35 U.S.C. 102(b) as being anticipated by Harrington et al. who disclose anticipating compounds such as N-(4-chloro[1,1'-biphenyl]-4-yl)-1,1,1-trifluoromethanesulfonamide.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 14-19, 21-23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Hashimoto et al. who disclose anticipating compounds such as 2-[4-[[4'-chloro-4-[(methylsulfonyl)amino][1,1'-biphenyl]-2-yl]methoxy]phenyl]-1-cyclohexyl-1H-benzimidazole-5-carboxyclic acid and generically disclosed compounds useful against hepatitis C. The instant invention differs from Hashimoto et al. in that not all possible generially overlapping compounds have been actually made. It would have been prima facie obvious at the time the invention was made to one of ordinary skill in the art to make additional generically overlapping compounds in view of the anticipating compounds and to expect to produce additional compounds active against hepatitis C.

Claims 1-6, 10, 14-19, 21-23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasit et al. who disclose the anticipating compound 1-[4-chloro-4'-[methylsulfonyl)amino][1,1'-biphenyl]-3-yl]-N-(cyanomethyl)-4-methyl-2-

pyrrolidinecarboxamide and generically disclosed compounds useful against osteoporosis. The instant invention differs from Prasit et al. in that not all possible generially overlapping compounds have been actually made. It would have been prima facie obvious at the time the invention was made to one of ordinary skill in the art to make additional generically overlapping compounds in view of the anticipating compound and to expect to produce additional compounds active against osteoporosis.

. Claims 1, 10, 14-17, 18, 19, 21-23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akasaka et al. who disclose the anticipating compound N-[2,2',4'-trichloro-5-(4-ethyl-1-piperazinyl)[1,1'-biphenyl]-3-yl]-1-propanesulfonamide and generically disclosed compounds useful in ameliorating mental disorders. The instant invention differs from Akasaka et al. in that not all possible generially overlapping compounds have been actually made. It would have been prima facie obvious at the time the invention was made to one of ordinary skill in the art to make additional generically overlapping compounds in view of the anticipating compound and to expect to produce additional compounds active useful in ameliorating mental disorders.

. Claims 1-7, 10-23 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington et al. who disclose anticipating compounds such as N-(4-chloro[1,1'-biphenyl]-4-yl)-1,1,1-trifluoromethanesulfonamide and generically disclosed compounds useful against fungi and as antiinflammatories. The instant invention differs from that of Harrington in that not all possible generially overlapping compounds have been actually made. It would have been prima facie obvious at the time the invention was made to one of ordinary skill in the art to make additional generically

overlapping compounds in view of the anticipating compounds and to expect to produce additional compounds active fungi and as antiinflammatories.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-31 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for treating ovarian cancer with the compounds specifically shown in the specification, does not reasonably provide enablement for the treatment of all cancer. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Applicants' claims broadly read on a method of modulating KSP kinesin activity, a method of treating a disease of proliferating cells or of a method of treating cancer. The treatment of cancer is known to be problematic and although the level of skill in the art is high, applicants only test against one cell line. In the specification only a few compounds are actually made and although more compounds are listed, these are only a few of the large number encompassed by applicants' generic claim. Undue experimentation would be required to know which compounds would be effective against all of the various types of cancer.

Claims 24-26 are allowable but objected to as dependent on rejected claims. Claim 27 is allowable.

Any inquiry concerning this communication should be directed to Peter G. O'Sullivan at telephone number (571)272-0642.

/Peter G O'Sullivan/

Primary Examiner, Art Unit 1621